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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER

CASTRO, ANGEL A

ART UNIT PAPER NUMBER

2653

DATE MAILED: 04/08/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/888,093

Applicant(s)

JUDGE ET AL.

Examiner

Angel A Castro

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 18 October 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-100 is/are pending in the application.
- 4a) Of the above claim(s) 66-93 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-65 and 94-100 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 10/10/03, 8/15/03.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Election/Restrictions

1. Applicant's election without traverse of Group I in a Paper filed 10/18/04 is acknowledged.
2. Claims 66-93 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected Group, there being no allowable generic or linking claim. Election was made **without** traverse in a Paper filed 10/18/04.

Claim Objections

3. Claim 64 is objected to because of the following informalities:

In line 2, "recroding" should be changed to --recording--. Correction is required.

Claim Rejections - 35 USC § 112

4. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.
5. Claim 34 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. The diameter of the reel could be one inch but the claim suggests that it could go until reels having a diameter of zero.

Claim Rejections - 35 USC § 102

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

7. Claims 1-5, 7-8, 11, 13, 20-22, 24-25, 28, 30, 35-36, 38-39, 42, 44-45, 47-48, 51-58, 60-61, 64, 94-99 are rejected under 35 U.S.C. 102(b) as being anticipated by Zhou (U.S. Pat. 6,638,594).

Regarding claims 1, 13, 30, 44, 53-54 and 94-95, Zhou discloses an article, comprising:

a substrate in the form of a tape (column 4, lines 38-39); and

an optical recording material (column 2, lines 21-24) disposed over the substrate.

Regarding claims 2, 56 and 96, Zhou discloses that the substrate has a thickness of less than about one millimeter (column 4, line 37).

Regarding claims 3, 20, 55, 97, Zhou discloses that the article comprises a flexible article (it is a tape).

Regarding claims 4, 21, 35, 57 and 98, it is inherent in the reference to Zhou that the aspect ratio is of at least about 1.5 (it is a tape where the length is much longer than the width).

Regarding claims 5, 22, 36, 45 and 58, Zhou discloses that the substrate comprises a polymer (column 4, lines 32-39).

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Regarding claims 7-8, 24-25, 38-39, 47-48, 60-61 and 99, Zhou discloses that the optical recording material comprises an optical phase change material and comprises germanium, antimony, tellurium and combinations thereof (column 2, lines 21-24).

Regarding claims 11, 28, 42, 51-52 and 64, Zhou discloses a reflective material between the substrate and the optical recording material (column 5, lines 16-18 and column 4, lines 26-29).

8. Claims 1, 5-6, 9-10, 12-13, 22-23, 26-27, 29-30, 36-37, 40-41, 43-46, 49-50, 53-54, 58-59, 62-63, 65, 94-95 and 100 are rejected under 35 U.S.C. 102(b) as being anticipated by Hintz et al (U.S. Pat. 5,460,853).

Regarding claims 1, 13, 30, 44, 53-54 and 94-95, Hintz et al discloses an article (figures 2-3), comprising:

a substrate 36 in the form of a tape; and

an optical recording material 40 disposed over the substrate.

Regarding claims 5-6, 22-23, 36-37, 45-46, 58-59, Hintz et al discloses that the substrate is a polymer consisting of polyethylenenaphthalates, polyimides, polyaramids and combinations thereof (column 8, lines 13-15).

Regarding claims 9-10, 26-27, 40-41, 49-50, 62-63 and 100, Hintz et al discloses a magneto-optic material comprising tellurium, iron, cobalt and combinations thereof (column 8, lines 13-19).

Regarding claims 12, 29, 43 and 65, Hintz et al discloses a reel, wherein the substrate and the optical recording material form a tape that is at least partially wound around the reel (see figures 1 and 4).

Claim Rejections - 35 USC § 103

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

10. Claims 14-19 and 31-34 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hintz et al.

Regarding claims 14-19 and 31-34, Hintz et al discloses the article described above. Hintz et al does not specifically disclose the thickness of the substrate and the diameter of a reel that would support the article. It would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the article of Hintz et al with the substrate having the claimed thickness and the reel having the claimed diameter.

The rationale is as follows: The purpose of the reel is to support a long tape in a reduced volume and a longer tape would fit in a given volume if the thickness of the substrate were thinner. One of ordinary skill in the art would have been motivated to provide the article of Hintz et al with the substrate having a thickness from about 4 microns to 6 microns and a reel diameter of less than about one inch as doing this would increase the volumetric density of the information in the reel.

Furthermore, one of ordinary skill in the art would have been motivated to have had the article and the reel with the claimed dimension ranges of the thickness and diameter since such ranges, absent any criticality (i.e., unobvious and/or unexpected results), are generally

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achievable through routine optimization/experimentation, and since discovering the optimum or workable ranges, where the general conditions of a claim are disclosed in the prior art, involves only routine skill in the art.

Conclusion

11. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Zhou (U.S. Pat. 6,638,594) discloses a rewritable optical information medium; Stephenson et al (U.S. Pat. 6,597,397) discloses a digital still camera with optical tape; Morisada (U.S. Pat. 6,227,476) discloses a take-up control device; Asai et al (U.S. Pat. 5,468,593) discloses an optical recording medium; Adkins et al (U.S. Pat. 5,382,463) discloses a data storage media; Hara et al (U.S. Pat. 4,970,707) discloses an optical tape apparatus.

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Angel A Castro whose telephone number is 571-272-7584. The examiner can normally be reached on Monday through Thursday, 8 AM to 6 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, William R Korzuch can be reached on 571-272-7589. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

A handwritten signature in black ink, appearing to read "Angel Castro".

Angel Castro, Ph.D.

**ANGEL CASTRO
PRIMARY EXAMINER**